



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APR  
TRW

In re Patent Application of

O'BRIEN et al

Atty. Ref.: 36-1148; Confirmation No. 6681

Appl. No. 09/043,406

TC/A.U. 3628

Filed: March 18, 1998

Examiner: Robinson Boyce, A.

For: SERVICE PROVISION SYSTEM FOR USE IN DISTRIBUTED PROCESSING  
ENVIRONMENTS

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May 14, 2008

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

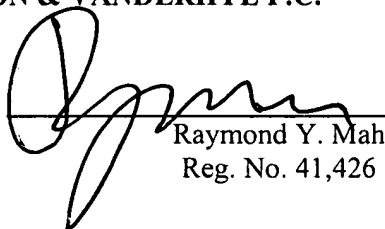
**RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF**

The Notification mailed 04/17/2008 states that the Appeal Brief was defective because "The argument section must match the grounds section insomuch as each grounds corresponds to a heading within the argument section. (grounds 1# claim 58 is canceled)." Appellant submits herewith a corrected argument section which reflects the fact that claim 58 has been canceled. As permitted by the Notice, only the arguments section (rather than the entire brief) is attached. Appellant requests further action on the merits with respect to the Appeal Brief.

Respectfully submitted,

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(VII) ARGUMENT

Claims 53-57 and 61-64 and 66-67 are not anticipated under 35 U.S.C. §102 by Carr et al (U.S. '446, hereinafter "Carr").

Independent claims 53 and 61

Anticipation under Section 102 of the Patent Act requires that a prior art reference disclose every claim element of the claimed invention. See, e.g., *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1574 (Fed. Cir. 1986). Carr fails to disclose every claim element of the claimed invention. For example, Carr fails to disclose processing a service request for a composite service on the basis of one or more pre-negotiated conditions with one or more providers of sub-services (i.e., sub-processes) included within the composite service. Namely, Carr fails to disclose "processing means for processing the composite service request; negotiation means for use in establishing conditions applicable to provision, by one or more other agents in said multi-agent system, of one or more component processes involved in provision of the composite service, said negotiation means being adapted to assemble said conditions proactively by negotiation prior to receipt of said composite service request...wherein the processing means is adapted to process a composite service request by accessing one or more of the previously established conditions, for supply of component processes by said one or more other agents, in the data store, processing the request using the one or more established conditions and producing said response (emphasis added)," as required by independent claim 53. Carr also fails to disclose "establishing conditions applicable to provision, by one or more other agents in said multi-agent system, of one or more component processes in a composite service, proactively by negotiation prior to receipt of a request for said composite service...processing said composite service request by: a) accessing said previously established conditions, for component process supply in the data store (emphasis added)," as required by independent claim 61.

Rather than assembling conditions proactively by negotiation prior to receipt of a composite service request as claimed, the negotiation in Carr takes place in response to a service request. That is, the negotiation in Carr takes place after receipt of the service request. This activity in response to the service request in Carr slows the response time down because the negotiation takes time. In contrast, negotiation has taken place before a composite service request in the present invention. This pre-negotiation in the present invention speeds-up the response to the service request.

Section 7 (pages 10-11) of the non-Final Rejection alleges that col. 9, line 60 to col. 10, line 9<sup>1</sup> of Carr discloses negotiation prior to receipt of a composite service request as claimed. Appellant respectfully disagrees. Col. 9, line 60 to col. 10, line 9 of Carr states the following:

Upon making a determination that a substantial quantity of data is to be transmitted to a given user, the service provider could then initiate a request for bandwidth allocation on the cable TV system which would be transmitted by router 42 to control processor 48 which could then assigned (sic -- assign) a specified bandwidth for a given period of time in order to accommodate the data to be transmitted from the service provider to the user. This type of system requires the cooperative interaction between enhanced service provider and the split channel bridging unit in order to allocate bandwidth and provide for efficient data transmission through the cable television network where appropriate. Such an alternative system has the disadvantage that additional overhead and packet transmissions are required in order to provide the negotiations between the split channel bridging unit 18 and each enhanced service provider in order assign and allocate bandwidth. (Emphasis added.)

The above passage of Carr clearly and unambiguously states that the negotiations between the split channel bridging unit 18 (in particular, the control processor 48 of the split channel bridging unit 18) and an enhanced service provider 10A-10N occurs after a request for

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<sup>1</sup> Page 4, first paragraph and page 6, first paragraph of the non-Final Rejection identify an overlapping portion of Carr (col. 9, line 67- col. 10, line 15) as disclosing negotiation prior to receipt of a composite service request as claimed.

bandwidth allocation initiated by the enhanced service provider 10A-10N is transmitted to and received by the split channel bridging unit 18 (and certainly after a request for information has been made by and received from a user). That is, the above passage of Carr clearly and unambiguously indicates that the enhanced service provider 10A-10N initiates and transmits a request for bandwidth allocation. This request for bandwidth allocation is received by the split channel bridging unit 18 (in particular, received by the control processor 48 of the split channel bridging unit 18), which thereafter assigns a specific bandwidth for a given period of time to accommodate data to be transmitted from the service provider to the user. The “cooperative interaction” between the enhanced service provider 10A-10N and the split channel bridging unit 18 (including control processor 48) in order to allocate bandwidth occurs after the split channel bridging unit 18 has received the request for bandwidth allocation from the enhanced service provider 10A-10N.

Appellant submits that the control processor 48 of the split channel bridging unit 18 knows how much data has to be transmitted (e.g., 8 Mbits), knows how much bandwidth can be provided to the user on a selected RF channel (e.g., 2 Mbits<sup>-1</sup>) and allocates the enhanced service provider 2 Mbits<sup>-1</sup> (“a specified bandwidth” in the above passage) for 4 seconds (“a given period of time” in the above passage). The control processor 48 of the split channel bridging unit therefore finds the available bandwidth, specifies how much is available and indicates to the enhanced service provider 10A-10N how much is available. The control processor 48 cannot specify how much bandwidth is available before receipt of the service request from the enhanced service provider 10A-10N, because the amount of bandwidth available varies over time (depending on how many users are at any given moment downloading data from the enhanced service provider), and it has no way of knowing in advance when the data request will arrive (as users are inherently unpredictable).

Accordingly, the negotiation specifically identified in col. 10, lines 5-9 of Carr involves the enhanced service provider 10A-10N initiating and transmitting a request for bandwidth to the split channel bridging unit 18, and then the split channel bridging unit 18 then telling the enhanced service provider 10A-10N what bandwidth has been allocated (in other words, specifying the bandwidth) for the transmission and for how long the allocation will last. The determination of the bandwidth allocation and how long the allocation will last by the split channel bridging unit 18 is performed after receipt of the request for bandwidth allocation received from the enhanced service provider 10A-10N which initiates and transmits that request. This determination is not performed before receipt of the request for at least the reasons discussed above.

The non-Final Rejection's allegation that "the negotiation must take place before the request for bandwidth allocation" (see page 10) is therefore erroneous. The negotiation process between the split channel bridging unit 18 and the enhanced service provider 10A-10N to assign and allocate bandwidth is performed as a result of (i.e., after) the request for bandwidth allocation is initiated and transmitted by the enhanced service provider 10A-10N and received by the split channel bridging unit 18. Cooperative interaction forming the negotiation between the split channel bridging unit 18 and the enhanced service provider 10A-10N occurs as a result of, and hence after, initiation, transmission and receipt of the request for bandwidth allocation. The control processor 48 of split channel bridging unit 18 assigns a specified bandwidth for a given period of time after receipt by the split channel bridging unit 18 of the request for bandwidth allocation from the enhanced service provider 10-10N.

Section 7 (page 10) of the non-Final Rejection argues the following:

However, since the assignment of the bandwidth is *specified*, the negotiation process must take before the request for bandwidth allocation. One cannot assign a specified bandwidth without an initial negotiation of the bandwidth.

The above portion of the non-Final Rejection misconstrues the term “specified.” The term specified means “To state explicitly or in detail: *specified the amount needed.*”<sup>2</sup> A “specified” bandwidth is thus one that is stated explicitly or in detail. A “specified” bandwidth does not mean that the bandwidth has been pre-negotiated *per se* as alleged by the non-Final Rejection (i.e., the non-Final Rejection states “One cannot assign a specified bandwidth without an initial negotiation of the bandwidth.”) To draw an analogy, suppose a customer enters a store for the first time in order to purchase an item. A sign states that the item is on sale for \$1. That is, the sign *specifies* the amount needed to purchase the item is \$1. This does not mean that the customer and the store conducted any prior negotiation to assign the \$1 price. The customer’s entry into the store is his/her very first interaction with the store. The \$1 price was unilaterally specified by the store without any prior input from the customer (i.e., no prior negotiation between the store and customer) who only has the power to accept or not accept it.

Analogously, a “specified” bandwidth clearly does not mean or disclose that an initial negotiation for bandwidth has been conducted. The non-Final Rejection’s statement that “One cannot assign a specified bandwidth without an initial negotiation of the bandwidth” is erroneous -- just like any statement that a store cannot assign a specified price without an initial negotiation of the price (see the above example) would be erroneous.

Similarly, maintaining data indicating the bandwidth capacity of RF data channels associated with modulators 46A-46N in a database of the control processor 48 (see col. 9, line 5-14 and 45-49 – identified in page 6 of the non-Final Rejection), does not mean that the bandwidth capacity was pre-negotiated. The control processor is merely informed of what the bandwidth capacities are. In fact, the “negotiations between the split channel bridging unit 18 and each enhanced service provider in order to assign and allocate bandwidth (emphasis added)”

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<sup>2</sup> From <http://www.thefreedictionary.com/specified>. Appellants submit that this dictionary definition for this term is the same as that understood by those skill in the art at the time of the present application was filed.

discussed in Carr is for an alternative embodiment than the embodiment discussed in col. 9, line 5-14 and 45-49. See “Such an alternative system...” stated in col. 9, line 53 of the Carr.

Moreover, the request for bandwidth in Carr is an example of a request for an atomic (individual) service being dealt with by reference to some resource availability data. It is unknown how this request to allocate bandwidth can be reasonably construed to teach or suggest a composite service request, one or more component processes being involved in the provision of the composite service as claimed. Appellant submits that the request for bandwidth, identified in col. 9, line 60 to col. 10, line 9 (reproduced above) of Carr, from the service provider which leads to the negotiations between the split channel bridging unit 18 and each enhanced service provider in order assign and allocate bandwidth is not a composite service request, one or more component processes being involved in the provision of the composite service as claimed.

Even further, Section 5 (page 8) of the Office Action alleges that “As shown in col. 10, lines 31-36, there is a plurality of 6 megahertz bandwidth RF channels to be concurrently available. Therefore the request can be allowed based on 6 different bandwidths, and in order to *make an allocation one out of the 6 bandwidths* must be negotiation for each request (emphasis added).” Appellant fails to understand this allegation. In particular, Appellant fails to understand the meaning of the expression “one of the 6 bandwidths.” It appears that this allegation expresses a misunderstanding of Carr. The appropriate understanding of this portion of Carr can be developed from the following discussion.

Carr repeatedly refers to RF (Radio Frequency) channels. Carr indicates that the channels are 6 Mhz. (See, e.g., col. 3, lines 42-43 of Carr.) This is typical for a U.S. cable television system as evident from the attached pages from Wikipedia and Howstuffworks.com attached in Section (IX) Evidence Appendix of this Appeal Brief, which describe that each of the channels is 6 Mhz. Some of those channels carry TV programs, other channels carry data. It is up to the cable network operator which physical channel carries which TV program. A cable

network carries a number of such channels simultaneously (which is trivial since they occupy different frequency bands as the Wikipedia excerpt shows). The head-end of the cable network multiplexes the different channels onto the cable company's cable which winds its way around the local neighborhood in which cable customers tap into in order to get cable television service. This is what Col. 10, lines 31-36 of Carr is discussing.

Carr suggests that one or more of the available RF channels might be a data channel shared by many users (see, e.g., col. 4, lines 59-63). Again, that is fairly typical. If the number of users receiving data from a given cable becomes too great, then it might be necessary for the cable operator to assign one or more extra channels to carry data, and to divide the data customers into groups (see col. 6, lines 7-17). A cable operator may be typically aware of the data made available via each 6 Mhz channel (although it might vary from channel to channel depending on variation in the amount of interference at different frequencies). Hence, a cable operator could maintain a database which sets out additional data rate an RF channel already transmitting data might be able to offer.

Assuming the alternative system mentioned in col. 9, line 60 to col. 10, line 9 of Carr differs from the system discussed before it only in the ways mentioned, the alternative system would merely involve the enhanced service provider 10A-10N sending the control processor 48 of the split channel bridging unit 18 an indication of how much information it wants to send the user (see col. 8, lines 65-67 for example). As discussed above, the control processor 48 of split channel bridging unit 18, in response to (i.e., after receipt of) a request for available bandwidth, sends back to the enhanced service provider a specified bandwidth for a given period of time in order to accommodate the amount of information to be transmitted to the user from the enhanced service provider 10A-10N. Again, this indication of available bandwidth cannot be made prior to receipt of the request from the enhanced service provider 10A-10N.



Dependent claims 54-55 and 62-63

Claim 54 requires “one or more of said established conditions has an associated expiry time after which it is no longer applicable.” Claim 62 requires “wherein one or more of said established conditions for the component process supply stored in said data store is applicable until advent of an expiry time associated with said one or more conditions.” The non-Final Rejection (pages 5 and 7) alleges that col. 9, lines 53-62 of Carr discloses each of these limitations. Appellant disagrees. Col. 9, lines 53-62 (and following text) of Carr states the following:

Such an alternative system would require that each service provider be provided with an ongoing update of channel availability for each of the high-speed RF channels available through modulators 46A-46N. Or, the ESP could be provided with a single threshold value of the quantity of data to be transmitted, which is used to determine if the data channels are to be sent over the PSTN or CATV network. Upon making a determination that a substantial quantity of data is to be transmitted to a given user, the service provider could then initiate a request for bandwidth allocation on the cable TV system which would be transmitted by router 42 to control processor 48 which could then assigned a specified bandwidth for a given period of time in order to accommodate the data to be transmitted from the service provider to the user.

This portion of Carr relates to allocating bandwidth in response to a request for bandwidth allocation. It clearly does not disclose an expiry time of a condition.

Claim 55 requires “the processing means is adapted to detect an expired or undefined condition in the data store, which condition is applicable to a component process used in the provision of the requested composite service, and to trigger the negotiation means to establish a substitute condition.” Claim 63 requires “finding whether any conditions for provision of component processes in said service are expired or undefined and substituting a substitute condition in the event that any such condition is found.” Col. 9, lines 53-62 (reproduced above) of Carr does not disclose these claim limitations as alleged by the non-Final Rejection. Again, this portion of Carr relates to allocating bandwidth in response to a request for bandwidth

allocation. There is no disclosure of an expired condition or an undefined condition, detecting an expired condition or an undefined condition, or a substitute condition upon detection of the expired condition or the undefined condition.

**Claims 65 is not “obvious” under 35 U.S.C. §103 over Carr.**

Dependent claim 65 requires “wherein said method further comprises the step, *responsive to a failure to schedule one or more component processes*, of carrying out one of the following steps: i) re-schedule the component process; ii) transmit a message to an entity which requested the composite service indicating that the composite service can only be provided under conditions different to previously established conditions for supply of said composite service; iii) re-assign the composite service to another service provider; or iv) indicate to an entity which requested the composite service that the requested composite service cannot be provided (emphasis added).

With respect to claim 65, pages 8-9 of the non-Final Rejection states Carr “does disclose first and second requests in col. 8, line 29 – Col. 9, line 4, and therefore it would have been obvious to repeat scheduling....” This reasoning of the non-Final Rejection is flawed. In particular, the first and second requests discussed in col. 8, line 29 – Col. 9, line 4 are completely different types of requests. The first request is for information concerning the price and volume history of a stock for the past week (see col. 8, lines 28-31) and the second request is for information concerning travel and high definition picture information illustrating hotel facilities (see col. 8, lines 56-60). The first and second requests are completely different and independent, and thus the first and second requests do not suggest repeat scheduling as alleged by the non-Final Rejection. Moreover, the second request is not dependent on the failure to accommodate the first request, and thus this portion of Carr fails to teach or suggest “responsive to a failure to schedule one or more component processes.”